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REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO THE

REPUBLIC OF KOREA

FOR A

SECOND INTEGRATED DAIRY DEVELOPMENT PROJECT

October 15, 1975

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Currency Unit	=	Won
Won 485	=	US\$1.00
Won 1,000	=	US\$2.06
Won 1,000,000	=	US\$2,061.86

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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN TO
THE REPUBLIC OF KOREA FOR A SECOND INTEGRATED DAIRY DEVELOPMENT PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Korea for the equivalent of \$15.0 million to help finance a second integrated dairy development project. The loan would have a term of 25 years, including seven years of grace, with interest at 8-1/2 percent per annum. The proceeds of the loan will be onlent to KDBC with repayment over 15 years, including six years of grace, at the same interest rate.

PART I - THE ECONOMY

2. The latest Economic Report ("Current Economic Position and Prospects of the Republic of Korea") was distributed under cover of SecM75-437 dated June 9, 1975. The Country Data Sheets are attached as Annex I.

3. Korea's economic performance over the last decade has been outstanding. It entered the sixties with one of the lowest income levels in the world; it had little experience of participation in international trade; and it lacked natural resources. Despite these unpromising beginnings, Korea embarked on a course of export-oriented industrial growth that has led to its recognition as one of the most successful examples of development. Its rich endowment with the human capabilities for economic success, the availability of considerable entrepreneurial talent, a social environment which is conducive to rapid economic change, and a national dedication to unambiguous economic goals, all contributed to Korea's impressive performance. In the period 1964-74, the GNP growth rate averaged 10 percent a year in real terms, reaching the record level of 16.5 percent in 1973. This, together with a decline in population growth (from about 2.7 percent per year at the beginning of the period to about 1.7 percent at present), caused per capita income to more than double in the period. The mainspring of economic growth has been the increase of manufactured exports (from about \$65 million in 1964 to over \$4 billion in 1974). The ratio of exports to GNP rose rapidly from 4 percent in 1964 to 27 percent in 1974, and the manufacturing sector as a proportion of GNP increased from 12 percent to 28 percent in the same period. Agriculture, despite an annual growth rate of about 3.5 percent during the last decade, declined as a proportion of GNP (from 43 percent in 1964 to 23 percent in 1974).

4. Total real investment grew ten-fold between 1964 and 1974, and the ratio of investment to GNP rose from 13 percent to 29 percent. External resource requirements also grew rapidly, averaging about 9 percent of GNP during 1970-71, roughly the same level as in the early 1960's. The marginal saving rate during the last decade was 30 percent, which indicates that large capital inflows did not weaken efforts to mobilize resources domestically. However, Korea entered upon a period of rapid growth with a very low level of domestic savings and, therefore, the Government pursued a

policy of relatively heavy dependence on external capital in the interest of a rapid acceleration of investment and growth. Moreover, since exports during 1964-74 were rising at an average rate of nearly 47 percent, the burden of additional external debt was not excessive, and the debt service ratio stood at around 13 percent in 1974.

5. Korea's performance in attempting to achieve a balanced distribution of the benefits of growth is also creditable. However, despite the fact that income distribution in Korea is generally more equitable than in comparable developing countries, the absolute gap in incomes between the urban and rural areas widened during the 1960's despite substantial migration to the cities, a modest reduction in the farm population, and high yields per unit of land under cultivation. Growth of labor productivity in agriculture was nevertheless considerably slower than in manufacturing. Since 1967, the Government has attempted to raise farm incomes and to provide other incentives for increasing foodgrain production through a price support system covering rice and barley. It broadened its efforts to achieve more widely and evenly distributed income growth by pursuing policies of decentralizing industry and emphasizing investment in the less developed regions. Also, in 1971, the Government initiated the Sae Maeul (New Community) Movement as a nationwide self-help program, aimed at increasing productivity and incomes (especially in the rural areas where nearly half the population still lives) and at improving the quality of rural life. Partly as a result of these various measures, average rural household incomes are now nearly in line with those of average urban households.

Recent Trends

6. During the last three years the Korean economic situation has been subject to sudden and sharp changes. Beginning with the latter part of 1972, the Korean economy experienced an unprecedented boom. 1973 was an exceptional year, even by Korean standards, and set new records of growth in GNP, exports and savings. In the latter part of 1973, Korean economic aspirations were expressed in terms of official targets for the early 1980's of \$1,000 per capita and \$10 billion of exports. The long-term strategy implied the continuation over the next decade of an overall rate of GNP growth of about 10 percent per annum but with reduced dependence, in relative terms, on net inflows from abroad.

7. The favorable economic developments of 1973 were interrupted by external developments in 1974. The sharp rise in the price of petroleum beginning in late 1973, the recession in the Japanese and U.S. economies in 1974, and the high level of foodgrain and other import prices, combined to bring about a major change in the short-term economic position of Korea. Owing to its poor natural resource endowment and because of its economic structure and growth strategy, Korea was severely affected by these international developments. Merchandise exports now account for about 24 percent of GNP in Korea; and dependence on the Japanese and U.S. markets remains heavy, notwithstanding the Government's efforts to diversify export markets by encouraging sales in the Middle East, Europe and Latin America.

8. The higher costs of energy and food imports alone have placed a severe burden on the economy and the balance of payments. Korean dependence on imported fuels is not only extremely heavy but is also very closely linked to essential industrial and transport uses. The additional cost of petroleum added almost \$800 million to the import bill in 1974 (considerably more than twice the current account deficit in 1973) and a doubling of the prices of foodgrains increased foreign exchange requirements in 1974 by more than \$300 million, despite a decline in the volume of these imports. Together petroleum and foodgrains accounted for about 45 percent of Korea's increased import bill in 1974 and 25 percent of total import payments. The cost of imported raw materials and intermediate goods also increased appreciably and compounded the balance of payments problem. The magnitude of the effects of these adverse developments can be gauged by the fact that Korea's terms of trade deteriorated by 18 percent, or about 5 percent of GNP, in 1974 compared with 1973.

9. Notwithstanding the very serious terms of trade loss, the Korean economy might have been able to avoid a major slowdown but for a simultaneous setback to export growth. Real export growth, which had reached the peak of 52 percent per annum during 1972-73, slowed down to 9 percent during 1974 and may come down further to only 4 percent in 1975. This sharp decline in export growth is attributable directly to the deep recession in the U.S. and Japan, Korea's major trading partners. The volume of Korean exports to Japan is estimated to have declined by about 6 percent during 1974, and Korea's trade deficit with Japan widened to \$1.2 billion compared to \$0.5 billion in 1973. The volume of exports to the U.S. increased even in 1974. It is noteworthy that Korean exports to countries other than the U.S. and Japan showed a marked real increase of 40 percent during 1974, which if sustained will denote considerable success with the market diversification effort.

10. Imported inflation has also led to a very sharp upward pressure on the domestic price level. In addition to the sharply higher prices of imported petroleum and foodgrains, the average unit value of other imports increased by 45 percent during 1974. Consequently, the rate of domestic inflation accelerated; in calendar year 1974, consumer prices rose by about 26 percent and wholesale prices increased by about 45 percent. Since the middle of 1974, the rate of domestic inflation has slowed somewhat, reflecting seasonal factors, the slower increase in the prices of imported goods and the dampening effects of rising inventories of manufactured goods.

Government Policy Response

11. Until the end of 1974, the Government followed policies which were based on the premise that the economy should remain poised to capitalize on the worldwide economic recovery, which Korea expected would commence by early 1975. Thus, the principal objectives of policy in 1974 were to ease the adjustment to higher oil and other import prices, while cushioning the impact of the recession to avoid unduly slowing domestic investment and employment growth.

12. In general, the Government has been committed to accepting necessary price adjustments arising from higher energy and other import costs; one major exception to this general policy was its unwillingness to place on consumers the full burden of higher import costs of basic foodstuffs. Thus, despite increases in prices paid by consumers for foodgrains, substantial subsidies are involved in the sale of wheat and rice. Complete avoidance of subsidies at a time of growing unemployment and declining real wages in manufacturing would have been difficult. Nevertheless, the Government fully recognizes the distortions in the price structure resulting from these large subsidies and is greatly concerned with the heavy burden they have placed on the budget. Thus, remodelling of the price structure is a major objective of the Government.

13. Selective credit measures to assist the most distressed industries were another element in the Government's effort to cushion the impact of recession in 1974. These measures were intended to enable industry to finance stocks of specified raw materials, and to carry raw materials and finished goods inventories that had become excessive as a result of the decline in export demand. Small- and medium-sized firms which were particularly hard hit by the onset of the recession were assisted by a large credit program embracing both working capital and investment loans. These firms also benefitted from a preferential (government subsidized) interest rate of 12 percent, 3 percent below the normal bank rate on such loans. Similarly, special subsidized credit facilities were made available to the machinery industries and to finance equipment purchases by export industries. All told, such programs provided credits totalling some W 200 billion (\$495 million), equivalent to over 20 percent of the increase in total credit to the private sector in 1974. Overall monetary policy, which had been made quite tight in the first half of the year, was significantly eased after mid-year. The increase in domestic credit in the second half of the last year was more than double that in the January-June period and, over the year as a whole, domestic credit expanded by about 50 percent compared with an increase of only about 30 percent in 1973. However, owing to the contractionary influence of the external deficit, the money supply increased by only about 30 percent, compared with 40 percent in 1973.

14. In December 1974, the Government introduced a further set of special measures to offset the sluggish demand for exports and to relieve the liquidity problems of exporters. It expanded the program of export financing, undertook to purchase excess inventories of finished goods from industries particularly hard hit by the fall in export demand, and increased credits to exporters for the purchase of imported and domestic materials. On December 7, 1974, the currency was devalued by 17.5 percent to W 485 per U.S. dollar. The devaluation was not expected to increase exports appreciably because of the depressed state of Korea's overseas markets, but like some of the other measures, it was intended to improve the liquidity position of manufacturing enterprises. It should also improve the competitive position of import substitution industries which had been weakened during the year. But the devaluation will also contribute to continued inflationary pressures in 1975. Among measures taken by the Government to help the low income groups are substantial income tax relief, a 30 percent increase in the

salaries of Government employees and the initiation of public works projects, mainly in the urban areas, to alleviate unemployment. The rural areas appear to have been hit less hard by the economic slowdown. The terms of trade moved further in favor of the farmers during 1974 as the support price for rice was adjusted sharply upward.

15. It was largely because of the efforts to sustain the 1973 momentum of growth that the real GNP rose in 1974 by more than 8 percent; sizeable gains were recorded in both consumption and investment. However, notwithstanding the support provided by Government, there was a sharp slowdown in industrial output, private fixed investment and export sales in the second half of 1974.

16. The impact of the adverse turn of events in 1974 was borne primarily by the balance of payments. The current account deficit widened from \$0.3 billion in 1973 to \$1.8 billion in 1974 and may be somewhat larger in 1975. Even this expectation assumes a substantial improvement in the latter half of this year, since the current account deficit in the first half of 1975 alone amounted to \$1.6 billion; however, by July there were signs that import and export trends were coming into better balance. The financing of the 1974 deficit involved a very large reduction (\$738 million) in net international reserves (to \$300 million); so far this year the continued deficit has meant further reduction in net international reserves which are now substantially negative. The financing of the large anticipated balance of payments deficit for 1975 will require a major increase in disbursements of medium- and long-term loans.

Longer-Term Prospects

17. Before the international developments of late 1973 and 1974, Korea appeared to be set on an economic course which could have led to its exceeding its long-range economic goals. However, the changes since the long-term framework was formulated in 1973 have necessitated a re-examination of both the objectives and the strategy. Although revised plans have not been completed, it appears that the target for the average annual increase in GNP will be somewhat different from that originally envisioned. Nevertheless, industrial development will remain an important element of the strategy. Greater emphasis is also being given to increasing agricultural production and rural incomes. Korea's developmental strategy will, of course, have to be kept under close and constant review, so as to adapt it to changing circumstances. The preparation of the Fourth Plan (1977-81) affords an opportunity for a careful reconsideration of strategy; the Government has been extended financial assistance by the UNDP to meet the cost of consultants (and fellowships for Korean staff) to assist with preparation of the Plan during the next 12 months, and the Bank is acting as Executing Agency.

18. Korea will in all probability be capable of sustaining an annual growth rate of GNP of 8 percent during the next decade, provided the large external capital inflows required to meet the sizeable balance of payments deficits are available on reasonable terms. Considering that 90 percent of Korea's exports now consist of manufactured goods, that its links with the

Japanese economy remain strong, that vigorous efforts are being made to penetrate new markets (especially in Europe and the Middle East) and that some progress has already been made in diversifying the industrial structure, a long-term real growth rate of exports of at least 12 percent appears possible even if world trade in manufactures should expand at a much slower rate. However, this would represent a substantially slower export growth than in the past, and Korean plans already envisage greater emphasis on import substitution in three key areas (a) foodgrains, (b) energy and (c) machinery production, all of which will probably mean sharply higher investment costs per unit of output.

19. The Government is aware of the need for careful monetary and fiscal management in the months ahead. The ability to contain the balance of payments deficit will depend partly on the speed of the recovery of exports and partly on the Government's determination to narrow the fiscal deficit and to reduce the rate of domestic credit creation. However, substantial reduction in the current account deficit is likely to take several years unless the upturn in the U.S., Japanese and other OECD economies is very sharp in the years after 1975. Finding the means to finance the external deficits will continue to be Korea's most urgent economic challenge. The servicing of the sizeable foreign borrowing required should not pose serious difficulties for Korea given the present debt service ratio and the long-term prospects for continued export growth, provided that the proportion of debt incurred on short- and medium-terms and at high interest rates is not excessive. The debt service ratio stood at about 13 percent at the end of 1974. It is expected to rise moderately to around 16 percent by 1980 and decline to less than 15 percent by the mid-1980's.

PART II - BANK GROUP OPERATIONS

20. As of August 31, 1975, Korea had received 21 Bank Loans and 8 IDA Credits, amounting in total to \$854.7 million in loans and \$107.0 million in credits (taking into account cancellations and the refinancing of one IDA Credit in a subsequent Bank loan).

21. Nearly one-half of the total has been for the transport sector -- \$219.7 million for railways, \$101.5 million for highways and \$80 million for ports. \$130.5 million has been lent for agriculture projects. The Korea Development Finance Corporation (KDFC) has received \$150 million and the Korea Development Bank (KDB) \$60 million in Bank loans for relending to private industry. A program loan of \$100 million was made for the financing of urgently required imports of capital and intermediate goods. A total of \$80.3 million has been provided for three education projects; \$25.0 million for a tourism project; and \$15.0 million for a secondary cities project.

22. Excluding one project that was subsequently cancelled, IFC had, by August 31, 1975, entered into nine commitments: five in the financial sector and one each in the fields of textiles, electrical and electronic products, synthetic fibers and tourism, totalling \$30.5 million (net of participations

and cancellations). Currently, IFC has under advanced consideration a zinc smelting project and a project involving the leasing of industrial equipment; under preliminary consideration are projects in the fields of steel products, cement distribution, electric motors, bearings, and tire manufacturing.

23. Korea's industrial development programs require large capital expenditures in the private sector, a situation which enhances the need for IFC presence. With the closer relationship established as a result of recent promotional efforts, it is expected that IFC's activities will continue to expand rapidly. IFC would seek projects that would: (i) result in foreign exchange revenues or savings; (ii) help to modernize or deepen the industrial structure; and (iii) increase value added in manufacturing.

24. As of August 31, 1975 about \$482 million of the total Bank lending remained undisbursed on effective Loans and Credits. The rate of disbursements has increased in recent months. Annex II contains a summary statement of Bank Loans, IDA Credits, and IFC Investments as of that date and Notes on the execution of ongoing projects. As indicated in the Notes, progress on project implementation is generally satisfactory, although difficulties have been encountered with some projects and most seriously with the Pyongtaek-Kumgang and Yong San Gang Irrigation Projects (Loan 600 and Loan 795/Credit 283, respectively).

25. The emphasis which the Government places on agricultural and rural development will be reflected in the programs for FY76 and FY77. The proposed project will help the Government's efforts to develop the dairy industry. In addition, a rural infrastructure project has just been appraised, and the Miho and Naeseong Cheon area development project pre-appraised. A second stage of the Yong San Gang Irrigation Project and the Okseo irrigation and regional development project have already been identified and are under preparation. Follow-on projects in agricultural credit and agricultural products processing are also under consideration.

26. The development of the industrial and agricultural sectors and of exports will require concurrent infrastructural development. Although the transport sector will be given relatively less emphasis than in the past, the investments required are large, and thus there is considerable support for this sector in the proposed program.

27. The Government is intensifying its efforts to prepare projects suitable for external official financing in the fields of infrastructure, agriculture and regional development. The foreign exchange component of such projects is low, partly because they consist largely of civil works, and Korea's construction industry is efficient and well organized and wins an overwhelming proportion of contracts put out to international competition; its dependence on imports is expected to lessen in the future. Moreover, the country's capacity to meet its requirements of machinery and equipment from domestic sources is also increasing. Korea's need for official aid therefore cannot be met if financing is confined to the foreign exchange costs of projects. For this reason the Bank should continue to be prepared to finance, in appropriate cases, a portion of local costs.

28. The share of the Bank Group in Korea's total external debt (disbursed) outstanding at the end of 1974 was about 6.0 percent, and the share of debt service was of the order of 2.4 percent at that time. These ratios are expected to increase somewhat by the end of the present decade.

PART III - THE AGRICULTURE SECTOR

29. Korea's geo-physical features have been a principal determinant of the pattern of its agricultural development. There is a concentration of settlement, intensive farming and irrigation development on the alluvial plains along the coastal areas in the West and South, increased double cropping moving from North to South, frequent drought and flood damage to crops and widespread occurrence of acidic soils. Of the 2.3 million hectares of cultivated land, the lowland and river valleys constitute about 60 percent, on which rice is grown; the balance is made up of the foothills bordering the paddy fields, on which upland crops and fruits and vegetables are cultivated, and the forest lands at the higher altitudes.

30. The extraordinary expansion of Korea's export-oriented manufacturing sector in recent years has, to a certain extent, obscured the tangible and impressive, albeit less spectacular, gains made by the country's agricultural sector; over the 1962-74 period its output increased by about 3.5 percent per annum (a rate comparable with that attained by Thailand, Indonesia and the Philippines). Korea's agricultural exports (including those of the fisheries sub-sector) rose from about \$70 million equivalent in 1967 to approximately \$423 million in 1974. Further, despite the steady increase in industrial wages, rising agricultural productivity and increased farmgate prices have contributed towards the achievement of near-parity in the earnings of urban and rural households. These achievements are all the more commendable in view of the fact that, because of the geo-physical features referred to above, only about a quarter of Korea's total land area of 10 million hectares is cultivable.

31. Nevertheless, the growth of agricultural output has not kept pace with domestic requirements. This has caused the Government to be increasingly concerned with the need to raise agricultural productivity and to devote additional resources to the development of the agriculture sector. More than three times the resources budgeted for agriculture in the previous Five Year Plan (1967-71) are included in the current Plan (1972-76).

32. The two major strands of the Government's agricultural development strategy are: (a) the encouragement of grain cultivation to relieve the strain which food imports place on the balance of payments; and (b) the expansion of the output of fruits, vegetables, mushrooms, tobacco, mulberry and livestock to increase farm incomes and to utilize labor more fully. The Bank Group's lending for agriculture in Korea has been aimed at assisting in the attainment of these objectives.

33. Of the \$130.5 million lent, to date, for agricultural projects, \$93 million was provided for the Pyongtaek-Kumgang (Loan 600-KO) and Yong San Gang (Loan 795/Credit 283-KO) Irrigation Projects which are expected to provide irrigation for, and improve drainage on, over 68,000 ha of land; \$10.5 million for an Agricultural Credit Project (Credit 335-KO), which is supporting a three year lending program for the provision of medium- and long-term credit through the National Agricultural Cooperative Federation (NACF), to develop orchards, sericulture, mushroom production and to encourage the breeding of poultry and swine; \$7.0 million Loan for the Seeds Project (942-KO) which is helping to develop new higher yielding varieties of cereal crops, oil seeds and potato for multiplication and distribution to farmers; \$13.0 million for the Integrated Agriculture Products Processing Project (994-KO) aimed at integrating the on-farm production of commercial crops on land that was idle or under-utilized with efficient and hygienic processing facilities. A \$7.0 million Credit (234-KO) helped finance the Integrated Dairy Beef Development Project (hereafter referred to as the First Project), which was a forerunner of the proposed project; its main components are the establishment of small- and medium-sized dairy farms by providing long-term loans, the construction and operation of two dairy products processing plants and the provision of management and technical services related to these activities. A short description of these Projects and their current status is given in Annex II. Details regarding the progress of the First Project are given in paragraphs 41-44 below.

Agricultural Institutions

34. The Ministry of Agriculture and Fisheries (MAF) (particularly its Agricultural Production Bureau) has major responsibilities for planning and supervising agricultural development programs, but they are carried out mainly by special agencies such as the Office of Rural Development (ORD) and NACF. The ORD has responsibility for agricultural research and rural guidance (extension) employing about 800 research scientists and about 6,000 rural guidance workers. The NACF is a nation-wide organization comprising about 1,800 primary cooperatives and 148 special purpose cooperatives for marketing and providing credit for the production of livestock, horticultural and other crops. About 90 percent of all farmers are members. NACF also carries out Government price support programs, provides insurance to farmers and distributes production inputs to farmers.

35. There are more than 180 agricultural high schools and 16 agricultural colleges, 13 of which offer training in livestock production, management and processing and in veterinary medicine. Short courses are available to farmers through the extension service. The Korea-New Zealand Demonstration Dairy Farm at Pyongtaek, administered by the Korea Dairy Beef Company (KDDBC), provides practical training in dairy production and management.

36. The Agriculture and Fishery Development Corporation (AFDC), a government agency under MAF, was established by special legislation in 1967 to foster agro-industry development in Korea by financing equity investments and providing long-, medium- and short-term loans, encouraging domestic

and foreign investments, providing technical and managerial assistance and training to borrowers, and developing domestic and export markets.

37. KDBC was established by AFDC in February 1969 as a quasi-government institution; 40 percent of its share capital is owned by Government and 60 percent by private shareholders. The objective of this enterprise parallels the national policy of fostering investments in the livestock industry to increase the protein food supply while also providing the rural population with wider opportunities to increase their cash income. KDBC is the executing agency for the First Project. In the short time KDBC has been in operation, it has demonstrated its strength in the technical and quality control aspects of processing, in engineering planning and execution and in on-farm development. However, KDBC's management needs strengthening particularly in procurement administration and in marketing. The proposed project would aim at improving KDBC's capacity in these areas through technical assistance.

Dairy Products Sub-Sector

38. Milk processing operations commenced in Korea in 1962. Prior to 1965, Korea imported more than 90 percent of all its milk product needs, virtually all of which it received as grants under bilateral aid arrangements. In 1965, the Government banned commercial imports, and in 1972 all gift imports were suspended. The embargo on the importation of practically all milk products is part of a Government program to strengthen the dairy processing sub-sector and raise incomes of those farmers owning unproductive land.

39. The Government's policy towards the processing sub-sector is to encourage cooperatives, and private and semi-private companies to develop the facilities required to satisfy the national demand for dairy products. The total installed processing capacity in Korea is about 180,000 mt per year and total production is about 175,000 mt. By 1985, total production to meet demand projections and utilize raw milk supplies is likely to be about 860,000 mt. A rapid expansion in investment in dairy processing is required to meet this level of production. It is expected that, by 1981, the production of fluid milk will absorb 50 percent of available raw milk supplies, baby milk powder about 19 percent, frozen milk products about 10 percent, milk powders about 19 percent and that 2 percent will be used in the manufacture of coffee creamers, yoghurts, cheese, etc. A substantial expansion of milk drying facilities is required to provide for the increasing demand for baby milk powder and other powders used to provide milk solids to food processing industries. A steady expansion of fluid milk plants is also required, but by far the largest gap to be filled in milk processing will be in respect of frozen milk products. The Seoul-Incheon area is relatively well supplied, but there is a need for more facilities to supply the Busan-Yeongnam area in the south which has a population of about four million. The plans for the development of such facilities during the rest of the decade rely heavily on the implementation of the proposed project.

40. In seeking to encourage investment in the dairy industry, the Government has pursued a basic policy of maintaining profitability by guaranteeing basic prices, promoting efficient marketing systems and allowing higher prices for quality goods. (Section 4.04 of the Loan Agreement.) At present, the Government establishes minimum prices for milk at the farm gate, guides maximum ex-factory prices for fluid milk in bottles, and controls the ex-factory price of baby milk powder. Prices for other dairy products, e.g. flavored milks, prepack and tetrapack fluid milk, as set by producers, must be justified to the MAF in consultation with the Economic Planning Board (EPB). Powdered milk (except for baby milk powder) and ice-cream prices are uncontrolled. These measures, which reflect the Government's desire to develop the dairy sub-sector, have been adopted at some economic cost, since the CIF prices of importable milk products are lower than the cost of production of such products locally.

KDBC's Dairy Development Program

41. KDBC's ongoing program was financed by IDA Credit 234-KO which became effective in August 1971 with KDBC as the executing agency. Its objective is to increase the national milk supply through a credit program for dairy development on unutilized upland. Stimulus for the KDBC program arose from the rapid increase in the cost of imported feeds and the difficulty of obtaining reliable overseas supplies. This meant that, if Korea was to have an adequate foundation for its dairy industry, it would need to reduce its reliance on imported stockfeeds and substitute these with locally grown pasture and forage crops. To date, about 580 farmers have participated and farm loans amounting to \$4.5 million equivalent have been approved. Some 4,900 head of cattle have been imported and the two dairy processing plants have been constructed and are in operation. The Credit of \$7.0 million has been almost fully disbursed.

42. Problems with pasture establishment, artificial insemination and calf rearing, together with the rising cost of farm inputs, caused the benefits to be somewhat less than had been expected. Further, project farms have been supplied with pregnant heifers instead of heifer calves as originally planned, since the farmers wished to obtain cattle closer to lactation to expedite the generation of cash incomes. The higher costs of importing in-calf heifers and of transportation resulted in the allocation of five cows on average per farm instead of the minimum of seven envisioned at appraisal. Many farmers had made investments in buildings, plant and machinery and pasture establishment to accommodate more cattle than they received. Consequently, overheads were greater and farm incomes lower than expected. It is to rectify this situation that an adequate number of cows will be imported under the proposed project to enable the allocation of a minimum of eight cows per farm.

43. Delays have been experienced also in the construction of the processing facilities. This, together with the commencement of milk flows earlier than expected on account of the procurement of in-calf heifers, compelled KDBC to resort temporarily to selling the milk to other processors at no profit and, at times, to paying farmers prices lower than those they

could have obtained from other processing concerns. However, since mid-1974 the processing plants constructed under the First Project have been in full operation; KDBC has assumed its role as a marketing and processing agency and the financial condition of some of the farmers has begun to improve. The technical services for both the processing and farm development components of the First Project have been satisfactory.

44. The activities and investments included in the proposed project were selected on the basis of experience gained in the First Project by the Government, KDBC and farmers. The First Project has demonstrated that dairy farms can be established on idle low rolling to hilly land with poor and shallow soils. It has provided important data about the costs of milk production utilizing pasture and fodder crops under Korean conditions, and has pointed the way to further efficiencies in dairy farm operations in Korea, particularly the reduction in the amount of concentrates needed to sustain production.

PART IV - THE PROJECT

45. A report entitled "Appraisal of Second Integrated Dairy Development Project" (No. 824-KO, dated October 13, 1975) is being distributed separately. A Loan and Project Summary is attached as Annex III. Negotiations were held in Washington from September 15 to September 23 with a Korean delegation led by Mr. Park, Jong Keun, of the Economic Planning Board.

46. The proposed project has been designed to meet the Government's objectives for accelerated growth of the dairy industry. It would continue growth in the subsector supported by the First Project and, by utilizing improved technology, would lead to greater efficiency in dairy production in Korea. Specifically, the proposed project would consist of:

- (a) the establishment of about 450 new dairy farms each of which would initially have 8 heifers (estimated cost: \$11.2 million, including contingencies);
- (b) the continuation of the development begun as part of the First Project on about 400 dairy farms, by increasing the number of heifers on each to ensure their long-term financial viability (estimated cost: \$2.7 million, including contingencies);
- (c) (i) the expansion of the two existing processing plants which produce baby milk-powder, sterilized fluid milk, and wholemilk powders; (ii) the diversification of the present plants to include production of butterfat, evaporated milk, and powdered coffee creamer; (iii) the establishment of two milk collection centers; (iv) the provision of approximately 50 small milk cooling units; and (v) the construction of a frozen milk products plant at Yeongnam (estimated cost: \$8.8 million, including contingencies); and

- (d) the expansion of technical services for both farm development and milk processing (estimated cost: \$1.8 million, including contingencies).

Detailed features of the project are described below:

Project Location

47. The First Project developed two regions - Central and Honam (see Map). The Central region is roughly 50-150 km south of Seoul and is served by KDBC's central milk processing plant at Jinui. The Honam region is 300-400 km south of Seoul and is served by the second of KDBC's milk processing plants at Gwangju. The proposed project would develop facilities in additional counties in the two regions and also cover a new region, Yeongnam, which lies in the south-east of Korea, 50 to 150 km north-east of Busan.

Farm Development

48. As mentioned in paragraph 46(a) and (b) above, the proposed project would involve the establishment of about 450 new dairy farms and the expansion and improvement of 400 existing ones. Pasture and area development on the dairy farms would include brush clearing, sowing of grasses and legumes, fencing, and improvement of the access roads. Animals would be housed in conventional stall barns, and be hand milked. The owner and one cowhand are expected to be able to manage up to 10 milking cows. The equipment to be provided for each farm would include a small silage cutter, a one third share in a petrol motor for the cutter, an electric fence, milk cans and a milk cooler. A well, hand-pump, piping and a trough would be provided to ensure an adequate water supply. The cowhand would be provided with simple housing in the cowbarn and a haybarn would be erected with sufficient storage space for fertilizers and machinery. Simple silage pits would be built to store winter feed.

49. Farmers are expected to follow the existing practice of stall feeding their animals in the first few years of project implementation. However, with improved knowledge of pasture management obtained from up-graded field extension services, it is envisaged that farmers will eventually resort to grazing their growing herds to help economize on labor costs. When weather prevents grazing, cattle would be fed chopped fodder supplemented with concentrate feeds, and in winter, silage made from forage crops, hay and concentrate feed. The cost of establishing each new farm (excluding contingencies) is estimated at W 7.9 million (\$16,400), of which about half would be for the purchase of livestock.

50. The continuation of development on existing farms would involve: (a) the purchase of additional pregnant heifers to raise the cow herd to eight per farm, and of milk cans and coolers; and (b) the renovation of existing, and the establishment of additional, pasture. These farms have adequate land, machinery, and space in their cowbarns to accommodate the additional heifers and their progeny. Most of the farms in this group have on average five milking cows and require assistance to purchase

three additional heifers, renovate four hectares of existing pasture, establish two hectares of new pasture and develop 0.5 hectares of additional forage cropland. The incremental costs involved per farm (excluding contingencies) would be W 2.2 million (\$4,600); of this, about W 1.5 million (\$3,000) would be for livestock.

51. The dairy farms, both new and existing, would be stocked with high-grade pregnant Friesian heifers. A total of about 4,800 pregnant heifers would be imported and distributed to project farmers.

Milk Processing Facilities

52. The proposed project will help raise KDBC's processing capacity to meet the incremental milk flow from existing and new farms until 1987. The new facilities will include the installation of a frozen milk products plant in the Yeongnam region with a basic capacity of 5,000 kg per hour for raw milk. This plant will enable KDBC to expand dairy processing and its farm technical services to new farm areas; it is expected to cost about \$4.6 million, including the cost of start-up materials but excluding contingencies, of which \$3.3 million would be in foreign exchange.

53. Investments in the Honam plant at Gwangju will include the extension of milk sterilizing equipment to raise capacity by about 50 percent to a daily throughput of 60 mt of raw milk. At the Central plant near Seoul, the evaporator unit will be enlarged and an additional ultra high temperature heater, which would enable KDBC to double milk drying capacity to about 80 mt per day, purchased. Provision has been made for additional equipment to utilize the drying capacity at the Central plant to produce a powdered coffee creamer, which is marketed in Japan. A condensed milk evaporator will also be installed at the Central plant to provide for increased production of baby milk powder and at the same time provide concentrated milk solids for the Yeongnam plant. A milk separator/standardizer will also be required for each of the plants to clarify milk to provide additional butterfat. Two electric generators, 500 KVA, have been included for the Central and Yeongnam plants to reduce production shutdowns during power shortages. Also, a recently enacted Korean law will require the provision of waste treatment equipment at the Central plant by 1976. Two 10 mt/day milk collection centers will be provided, one in the Central region and the other in the Honam region, to improve the flexibility in milk reception and considerably reduce milk collection costs. Fifty small cooling stations for groups of farmers are also included to reduce milk spoilage and improve the efficiency of milk collection. One 10 mt tanker would be provided for each of the processing plants. Including the cost of start-up materials, but excluding contingencies, these investments are expected to cost \$0.5 million (\$0.4 million in foreign exchange) for the Honam plant and \$1.3 million (\$0.8 million in foreign exchange) for the Central plant.

Technical Services and Training

54. The implementation of the proposed project will require technical assistance in a variety of areas. Accordingly, the provision of support for the following activities is included in the project: farm development planning; farm management and veterinary advisory services; farmer training; processing plant location studies, plant design and preparation of bid documents, and evaluation of bids for plant construction; product marketing studies; KDBC's financial management; and applied research. This technical support would either be a continuation of, or complementary to, the assistance provided under the First Project. The number of farm extension officers would be increased from 9 to 21 by the third year of the project and the number of technical specialists from 5 to 9. There would be one field extension officer for every 50 new farms. Four internationally recruited technical specialists would be engaged to provide technical support and training in dairy farm management, animal health and nutrition, pasture management and forage crop production, and milk processing.

55. New dairy farmers would be trained for four weeks at the Korea-New Zealand Dairy Demonstration Farm at Pyongtaek, while farmers on existing five cow farms would be required to attend a 10 day training course. A one week refresher course would be offered farmers a year after receiving their cattle and regular one day seminars would be held in each of the three milk producing areas for the first four years of project implementation.

56. The increase and diversification of the milk products which will result from the proposed project necessitate a considerable strengthening of KDBC's marketing department. A marketing specialist familiar with the Korean milk products market is to be hired by KDBC. The technical services required in connection with the start-up of the Yeongnam plant will be covered by an agreement, probably with the supplier, on a fee-paying basis.

57. Pasture and forage crop trials initiated during the First Project, particularly those investigating optimum fertilizer application rates, will be continued and extended into the Yeongnam region. Nutritional studies will be undertaken to determine profitable mixes of pasture, conserved forage and concentrate feeds. Calf rearing trials, including an evaluation of milk replacers, will be initiated. The overall objective of research work under this project would be to provide farmers with the necessary information and guidance to enable them to improve the management of their farms.

58. The total cost of the technical assistance to be provided (including the cost of 12 motorcycles for the extension officers and four jeeps for the technical advisors) is estimated at \$1.3 million (\$1.1 million in foreign exchange).

Project Costs and Financing

59. The total project cost is estimated to be \$24.46 million equivalent with a foreign exchange component of \$15.0 million (61 percent). The proposed financing plan is set out in the table below.

PROPOSED FINANCING PLAN
(in \$ million)

<u>Category</u>	<u>Farmers</u>	<u>MAF/NACF</u>	<u>KDBC</u>	<u>Bank Loan</u>	<u>%</u>	<u>Total</u>
Dairy Farm Development	2.61	3.88	-	7.42	53	13.91
Dairy Processing Facilities and Start-up Materials	-	-	2.70	6.06	69	8.76
Management and Technical Services	<u>-</u>	<u>-</u>	<u>.27</u>	<u>1.52</u>	<u>85</u>	<u>1.79</u>
Total	<u>2.61</u>	<u>3.88</u>	<u>2.97</u>	<u>15.00</u>	<u>61</u>	<u>24.46</u>
Percent of Total	11	16	12	61		100

60. The proposed Bank loan will cover all foreign exchange costs. It will be onlent to KDBC with interest at 8.5 percent and a repayment period of 15 years, including six years of grace. To minimize the financial burden on KDBC, the Government has agreed to assume the foreign exchange risk on Bank funds onlent for farm development and technical services; KDBC will bear the foreign exchange risk on the portion of the Bank loan used for the expansion of the milk processing facilities. Of the Government contribution of \$3.9 million, \$0.8 million will be a direct subsidy to farmers for pasture development through MAF and \$3.1 million will be in the form of a loan to KDBC from NACF, which will bear interest at the rate of 9 percent and be repayable over nine years, including four years of grace. The farmers' contribution will cover about 28 percent of dairy development costs, excluding contingencies. The balance of the estimated total project cost will be met by increasing the capitalization of KDBC from \$1.2 million to \$4.2 million. A schedule relating to the capital increase was discussed and agreed during negotiations; these funds will be provided either through a share capital increase or through "bridging" loans to KDBC by NACF or other appropriate government agencies, or through a combination thereof.

61. The Government will onlend Bank funds to KDBC at the same interest rate as the Bank loan; however, the Bank loan will be repaid over a period of 25 years, including seven years of grace, while KDBC will repay the Government in 15 years, including a grace period of six years. KDBC will relend the Bank funds and the portion of the NACF funds to be used for investment in

buildings, plant and water supply at 12 percent with repayment over nine years, including a grace period of three years. The repayment period will be the same for NACF funds lent for pasture establishment, but the interest rate would be 9 percent in line with the rate levied on Government loans for similar purposes. The term of the proposed Bank loan reflects country considerations and, in particular, Korea's need to obtain favorable terms on a significant portion of the external financing it requires in order to ease the long term debt service burden (see paragraph 19). The terms of the Government loan to KDBC and KDBC's onlending terms are designed to enable them to meet their debt service obligations on the basis of projected overall cash flow requirements.

Project Implementation

62. As the executing agency for the proposed project, KDBC will be responsible for (a) planning, disbursement and supervision of farm development loans; (b) planning, financing, construction and operation of the milk processing facilities; (c) applied research in pasture, fodder crop and animal nutrition; (d) product marketing and marketing research; and (e) local training of KDBC staff and of participating farmers and the implementation of a farm extension program. Participating farmers would be selected by KDBC in consultation with county livestock officials, who would also be responsible for arranging MAF grants for pasture establishment.

Procurement

63. International competitive bidding in accordance with the Bank's Guidelines will be applied for the purchase of machinery, equipment and start-up materials for dairy processing facilities. Vehicles to serve the processing facilities and civil works contracts for the construction of the dairy processing facilities will be awarded on the basis of competitive bidding advertised locally in accordance with procedures satisfactory to the Bank; foreign contractors would be eligible to bid. This arrangement is considered appropriate since the Korean construction industry is experienced, efficient and competitive, and several local plants, each with a foreign affiliate, ensure a competitive and adequate supply of vehicles. For the purchase of cattle, KDBC would submit to the Bank for its agreement a list of at least three countries from which suitable disease-free livestock could be imported. After agreement on the list, quotations will be sought from suppliers in these countries. Other goods required for dairy farm development such as farm machinery, milk cans, fencing, fertilizers, seeds and farm structures will be obtained through existing commercial channels. International competitive bidding would not be appropriate since individual contracts would be small and numerous and the size and combination of farm investments would vary considerably. There are no discriminatory import quotas or controls. Imports of cattle, farm machinery, and dairy equipment are exempt from import duties.

64. Vehicles and motorcycles required for the technical services component of the proposed project will be procured on the basis of competitive bidding advertised locally.

Disbursements

65. Disbursements from the proceeds of the proposed Bank loan would be made on the basis of:

- (a) 100 percent of foreign expenditures on imported cattle;
- (b) 25 percent of the loans (excluding the cost of cattle) disbursed by KDBC to participating farmers;
- (c) 100 percent of foreign expenditures for imported machinery, equipment, plant start-up materials, milk tankers and trucks, or 100 percent of local expenditures based on ex-factory cost; 44 percent (the imputed foreign exchange component) of civil works expenditures for the dairy processing facilities; and
- (d) 85 percent of total expenditures (net of tax) for management and consultant services to include emoluments, international travel, housing and research allowances; 85 percent of total expenditures for jeeps and motorcycles.

Benefits and Justification

66. The farms to be developed under the project are considerably larger than the national average, but since much of the farm area is not cultivable, average net on-farm income per household is of the order of 300,000 won, or about half the national average. Financial projections for the proposed project show that the increased net income of farmers participating in the proposed project would be W 2.8 million (\$5,835) at full development. These figures imply that new farm investments have an estimated financial rate of return of 20 percent. Since existing farms can support the increase in herd of 3 cows without further investments in buildings, water supply and farm plant, the rate of return on project investments is expected to be some 8 percent higher than that of the new farms. The project will, therefore, help the participating farmers to achieve their share of the growth in incomes projected for Korea generally in the next decade.

67. The proposed project at full capacity would supply 5,470 mt of sterilized milk at Honam with a market value in constant prices of \$2.8 million. The Central plant would produce an additional 1834 mt of baby powder milk marketable at about \$5.1 million and 466 mt of powdered coffee creamer marketable at about \$1.9 million. The Yeongnam plant would produce 11,000 mt of frozen milk products with a value of \$17.7 million.

68. The rates of return on the processing component of the proposed project are expected to be high. The expansion of the Central plant would have a rate of return of 37 percent, the Honam expansion 31 percent, and the installation of the Yeongnam plant 37 percent.

69. The project would directly benefit 850 farm households with a population of 4,250 and would develop about 4,600 ha. of unutilized land and 2,000 ha. of partially developed land. On-farm employment would be created for 800-1000 permanent workers and about 3,500 casual laborers. The capital cost per full-time job created, including those employed in farm households, would be about \$3,000. The proposed development of the milk processing facilities and the additional staff required in KDRC to implement the project would provide an additional 155 jobs.

70. Although the available data on nutrition and consumption patterns in Korea are not comprehensive, given the per capita income and the very substantial increase in the supply of high protein milk products that will result from this project, it is likely to prove to be nutritionally beneficial.

71. The project will support the Government's policy of placing increasing emphasis on agricultural projects which would enable farmers to diversify their production and utilize their labor more fully. It would afford farmers the opportunity of utilizing their labor year round, of spreading their risk between crop production and milk production, of building a revenue-earning asset from previously unproductive upland, and of sharing in the benefits from the improvements to public utilities such as roads, rural electrification, educational and medical facilities, stimulated by development of this type.

72. The project will facilitate the introduction of technological improvements which will have a bearing not only on more efficient livestock production, but also on lessening the dependence of such production on food-grains which could be used for human consumption. It also reflects the overall Government strategy for rural development, which emphasizes the structural change in the rural economy which would be brought about by rapid expansion of decentralized industrial employment and by consolidation of agricultural resources into viable production units capable of maintaining or improving the relative income position of farmers in an industrialized economy.

73. The economic rate of return was obtained after the adjustment of the main benefits and costs valued in terms of border prices or the border prices of their tradeable components, and by the elimination of taxes and subsidies. On this basis, the project has an estimated economic rate of return of 15 percent.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

74. The draft Loan Agreement between the Republic of Korea and the Bank, a draft Project Agreement between the Bank and KDBC, the report of the Committee provided for in Article III, Section 4(iii) of the Articles of Agreement of the Bank and the text of a draft resolution approving the proposed loan are being distributed to the Executive Directors separately. The draft Loan and Project Agreements contain covenants normally included in agreements for projects of this kind. The relending of the proceeds of the loan will be governed by the terms of a Subsidiary Loan Agreement, satisfactory to the Bank, to be concluded between the Republic of Korea and KDBC. Local funds to be provided for onlending to project farmers will be lent to KDBC by the National Agricultural Cooperative Federation which will also be a party to the Subsidiary Loan Agreement (Section 3.01(b) of the Loan Agreement). The Ministry of Agriculture and Fisheries' direct subsidy for pasture establishment shall be granted to farmers to be selected jointly by KDBC and the relevant county government (Sections 3.02 of the Loan Agreement and 2.10 of the Project Agreement). Pursuant to Section 2.08(b) of the Project Agreement, KDBC will increase its authorized capital to Won 2,027 million. In addition to these features, the following special conditions of effectiveness have been included in the Loan Agreement:

- (a) the execution and delivery of the Project Agreement and Subsidiary Loan Agreement, duly authorized and ratified by all necessary corporate or governmental action (Section 6.01 (a) and (b));
- (b) the provision of W 120 million, either through a share capital increase or loans, or a combination of both, as explained in paragraph 60 herein (Section 6.01 (c)); and
- (c) the transfer of title to the Korea-New Zealand Demonstration farm from the Agriculture and Fishery Development Corporation to KDBC (Section 6.01(d)).

75. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

76. I recommend that the Executive Directors approve the proposed loan.

Robert S. McNamara
President

Attachments

October 15, 1975

ANNEX 1

Page 1 of 3 pages

COUNTRY DATA - KOREA

AREA
98,477 km²

POPULATION
33.5 million (mid-1974)

DEMOGRAPHY

70.9 Per 1,000 of arable land

SOCIAL INDICATORS

	Korea		Reference Countries	
	1960	1970	1970	1970
GDP PER CAPITA US\$ (ATLAS BASIS) ¹	110 ^Δ	310 ^Δ	220 ^Δ	370 ^Δ
DEMOGRAPHIC				
Gross birth rate (per thousand)	40 ^Δ	28	43 ^Δ	38 ^Δ
Gross death rate (per thousand)	11 ^Δ	8	10 ^Δ	13 ^Δ
Infant mortality rate (per thousand live births)	..	..	80-90 ^Δ	110 ^Δ
Life expectancy at birth (years)	56	65	59	55 ^Δ
Gross reproduction rate ²	1.1 ^Δ	2.5 ^Δ	3.2 ^Δ	2.6 ^Δ
Population growth rate ²	3.0 ^Δ	2.2 ^Δ	3.1 ^Δ	2.5 ^Δ
Population growth rate - urban	7	6	5 ^Δ	4.5 ^Δ
Age structure (percent)				
0-14	44	40 ^Δ	45	42
15-64	53	57 ^Δ	50	54
65 and over	3	3	5	4
Age dependency ratio ⁴	0.9	0.8 ^Δ	0.9	0.8
Economic dependency ratio ⁴	1.6	1.4	1.1	1.1
Urban population as percent of total	28 ^Δ	43 ^Δ	33 ^Δ	39 ^Δ
Family planning: No. of users (as of married women)	..	..	590 ^Δ	144 ^Δ
EMPLOYMENT				
Total labor force (thousands)	7,400	12,100 ^Δ	16,700	11,500 ^Δ
Percentage employed in agriculture	66	1.6 ^Δ	79	67
Percentage unemployed	9	4.1 ^Δ	..	1.4
INCOME DISTRIBUTION				
Percent of national income received by highest 5%	17 ^Δ	15 ^Δ	..	32 ^Δ
Percent of national income received by highest 10%	42 ^Δ	37 ^Δ	..	60 ^Δ
Percent of national income received by lowest 5%	20 ^Δ	24 ^Δ	..	3 ^Δ
Percent of national income received by lowest 10%	20 ^Δ	24 ^Δ	..	10 ^Δ
DISTRIBUTION OF LAND OWNERSHIP				
% owned by top 10% of owners	27	28	..	53
% owned by smallest 10% of owners	3	2	..	0.9
HEALTH AND NUTRITION				
Population per physician	3,000 ^Δ	1,870 ^Δ	7,250 ^Δ	2,130 ^Δ
Population per nursing person	2,400 ^Δ	1,760 ^Δ	8,250 ^Δ	2,830 ^Δ
Population per hospital bed	..	1,050 ^Δ	820 ^Δ	1,180 ^Δ
Per capita calorie supply as % of requirements ⁵	85	103	105	110
Per capita protein supply, total (grams per day) ⁵	53	65	52	76
Of which, animal and prime	13 ^Δ	19 ^Δ	17 ^Δ	22 ^Δ
Death rate 1-4 years ⁶	..	..	..	15
EDUCATION				
Adjusted ⁷ primary school enrollment ratio	96	98 ^Δ	83 ^Δ	111
Adjusted ⁷ secondary school enrollment ratio	27	41	13 ^Δ	28
Years of schooling provided, first and second level	12	12	12	11
Vocational enrollment as % of sec. school enrollment	14	14	12	11
Adult literacy rate %	..	92 ^Δ	..	55 ^Δ
HOUSING				
Average no. of persons per room (urban)	2.8 ^Δ	2.7	..	1.9
Percent of occupied units with piped water	88 ^Δ	80 ^Δ	..	64 ^Δ
Access to electricity (as % of total population)	28	40 ^Δ	17	41 ^Δ
Percent of rural population connected to electricity	12	40 ^Δ	13	18 ^Δ
CONSUMPTION				
Radio receivers per 1,000 population	32	128 ^Δ	83 ^Δ	107 ^Δ
Passenger cars per 1,000 population	0.4	2	7 ^Δ	4
Electric power consumption (kwh p.c.)	71	392 ^Δ	164 ^Δ	304 ^Δ
Newspaper consumption p.c. per year	1.8	3.7	1.5 ^Δ	2.2 ^Δ

* Japan has been selected as an objective country due to the similarity of the present Korean economic structure to that of Japan in the mid-fifties (with the same principle resource base, i.e., arable land, abundant labor, cheap labor and heavy reliance on imported raw materials). Moreover, agriculture, transport, and other sectors of the economy have similar characteristics. Korea also has, in its Long-Term Plan (1972-80), a pattern of industrial development which is not very different from the one Japan pursued with great success in the sixties.

ECONOMIC DEVELOPMENT DATA
(Amounts in millions of U.S. dollars)

	1972	1973	1974	1975	1976	1980	1972-1974	1974-1975	1975-1980	1980-1985	1974	1975	1980
NATIONAL ACCOUNTS													
	1973 Prices and Exchange Rate						Average Annual Growth Rates				As Percent of GDY		
Gross Domestic Product	10,749	12,568	13,590	14,244	15,344	21,018	12.4	4.8	8.1	8.7	105.6	105.4	105.5
Gains from Terms of Trade (+)	-38	-	-721	-729	-741	-1,093	-	-	-	-	-5.6	-5.4	-5.5
Gross Domestic Income	10,711	12,568	12,869	13,515	14,603	19,925	9.6	5.0	8.1	8.6	100.0	100.0	100.0
Import (incl. NFS)	3,464	4,389	4,533	4,658	4,922	6,329	14.4	3.0	6.0	9.0	35.2	34.5	31.8
Exports " (import capacity)	2,349	3,286	2,882	3,002	3,382	5,332	10.8	4.2	12.0	12.0	22.4	22.2	26.8
Resource Gap	-1,115	-1,103	-1,651	-1,656	-1,540	-997	21.8	0.3	-9.3	-	-12.8	-12.2	-5.0
Consumption Expenditures	9,089	9,646	9,887	10,769	11,432	14,945	4.3	8.9	6.8	7.3	76.8	79.7	75.0
Investment " (incl. stocks)	2,352	3,246	4,000	3,799	3,937	5,314	30.0	5.0	7.0	12.2	31.1	28.1	26.7
Domestic Savings	1,821	3,103	2,866	2,389	2,927	4,997	25.5	-16.7	15.9	12.5	22.3	17.8	25.1
National Savings	1,798	2,920	2,673	2,188	2,673	4,603	21.8	-18.1	16.0	13.0	20.8	16.2	23.1
MERCHANDISE TRADE													
	Annual Data at Current Prices						As Percent of Total						
Imports													
Capital goods	791	1,157	1,868	2,075	1,818	2,946	53.0	11.1	7.2	16.1	27	28	19
Intermediate goods (excl. fuels)	1,100	2,109	2,990	3,120	4,191	8,048	64.8	4.3	20.5	18.8	45	44	51
Fuels and related materials	219	313	1,120	1,335	1,485	2,700	150.0	19.0	15.1	15.5	16	18	17
of which: Petroleum	218	296	1,120	1,320	1,474	2,680	150.0	18.0	15.2	15.5	16	18	17
Consumption goods	412	661	916	1,000	1,167	2,154	49.4	9.2	16.5	14.2	13	13	13
Total Merch. Imports (cif)	2,522	4,240	6,894	7,530	8,961	15,808	68.5	9.2	16.0	17.1	100	100	100
Exports													
Primary products (excl. fuels)	269	327	454	501	637	1,341	30.0	10.4	21.8	19.8	10	10	10
Fuels and related materials	18	35	108	115	125	175	160.0	6.0	8.7	7.0	2	2	1
of which: Petroleum	18	35	108	115	125	175	160.0	6.0	8.7	7.0	2	2	1
Manufactured goods	1,389	2,909	3,975	4,384	5,613	11,891	68.0	10.3	22.3	24.3	88	88	89
Total Merch. Exports (fob)	1,676	3,271	4,537	5,000	6,375	13,407	64.0	10.2	22.0	19.8	100	100	100
Tourism and Border Trade	-	-	-	-	-	-	-	-	-	-	-	-	-
Merchandise Trade Indices													
	Average 1973 = 100						As Percent of Total						
Export Price Index	79.0	100.0	125.9	134.3	148.5	206.0	26.0	6.8	8.9	7.3	-	-	-
Import Price Index	74.9	100.0	156.0	166.8	181.8	247.3	44.5	6.9	8.2	7.2	-	-	-
Terms of Trade Index	105.5	100.0	80.7	80.5	81.7	83.3	-13.0	-0.2	0.7	0.1	-	-	-
Exports Volume Index	63.8	100.0	103.8	108.0	125.2	182.0	27.8	3.8	11.0	10.7	-	-	-
VALUE ADDED BY SECTOR													
	Annual Data at 1973 Prices and Exchange Rates						Average Annual Growth Rates				As Percent of Total		
Agriculture	3,042	3,210	3,432	3,544	3,686	4,250	6.2	3.3	3.7	2.0	28	28	23
Industry and Mining	2,244	2,897	3,351	3,554	4,001	6,186	22.5	6.1	11.7	13.0	27	28	33
Service	4,571	5,307	5,555	5,783	6,057	8,072	10.1	4.1	6.9	7.6	45	44	44
Total	9,837	11,414	12,338	12,881	13,744	18,508	12.0	4.4	7.6	8.5	100.0	100.0	100.0
PUBLIC FINANCE													
(Central Government)													
Current Receipts	1,701	1,530	1,814	1,839	2,103	3,321	3.3	1.4	12.5	10.0	13	13	16
Current Expenditures	1,359	1,193	1,379	1,509	1,563	2,153	0.7	9.4	7.4	9.0	10	10	10
Budgetary Savings	342	337	435	330	540	1,168	12.8	-24.0	28.5	12.6	3	3	5
Other Public Sector	-	-	-	-	-	-	-	-	-	-	-	-	-
Public Sector Investment	859	445	580	621	714	1,563	-17.5	7.1	20.7	10.0	4	4	7
CURRENT EXPENDITURE DETAILS													
As % Total Current Expend.	1972	1973	Prelim. 1974	Est. 1975	Proj. 1980	US \$ million							
						At 1973 P and ER			Average 1974-75				
Education	3.2	3.4	3.2	3.4	3.0	52	58	5.2	5.2	5.2	5.2	5.2	
Other Social Services	1.9	2.0	1.9	1.9	12.5	167	223	18.5	18.5	18.5	18.5	18.5	
Agriculture	1.7	1.5	2.1	2.2	2.0	188	207	18.8	18.8	18.8	18.8	18.8	
Other Economic Services	2.2	2.0	2.4	3.1	5.0	94	105	9.5	9.5	9.5	9.5	9.5	
Administration and Defense	76.0	75.8	76.2	65.6	65.0	286	387	32.0	32.0	32.0	32.0	32.0	
Other	15.0	15.3	14.2	13.2	13.0	152	186	16.0	16.0	16.0	16.0	16.0	
Total Current Expenditures	100.0	100.0	100.0	100.0	100.0	939	1,168	100.0	100.0	100.0	100.0	100.0	
SELECTED INDICATORS													
	1960-1965	1965-1970	1970-1975	1975-1980	FINANCING								
Average ICOR	2.7	2.3	1.9	3.2	Public Sector Savings	123	19	6.8	6.8	6.8	6.8	6.8	
Import Elasticity	0.8	2.6	1.2	0.7	Domestic Borrowing	659	893	73.7	73.7	73.7	73.7	73.7	
Marginal Domestic Savings Rate	30.0	34.8	12.4	25.0	Foreign Borrowing	157	254	19.5	19.5	19.5	19.5	19.5	
Marginal National Savings Rate	28.0	26.7	6.0	23.3	Total Financing	939	1,168	100.0	100.0	100.0	100.0	100.0	
LABOR FORCE AND OUTPUT PER WORKER													
	Total Employment				Value Added Per Worker (1973 - 1974)				Prices & Exc. Rates				
	In Millions	% of Total	1972 - 74	Growth Rate	In U.S. Dollars	Percent of Average	1972 - 74	Growth Rate	1972 - 74	Percent of Average	1972 - 74	Growth Rate	
Agriculture	5.3	6.0	50.0	52.2	574	572	62	53	-0.3	100	100	100	
Industry	1.8	2.2	17.0	19.1	1,236	1,523	133	142	11.0	100	100	100	
Service	3.5	3.3	33.0	28.7	1,306	1,683	141	157	13.5	100	100	100	
Total	10.6	11.5	100.0	100.0	928	1,073	100	100	7.5	100	100	100	

.. not applicable - nil or negligible
 .. not available -- less than half the smallest unit shown

1/ Includes processed primary products.
 2/ Based on merchandise and non-factor services.
 3/ Budget.
 4/ Economic functional classification of Central Gov't. Expenditure.

5/ Development budget.
 6/ Residual (Economic Report)
 7/ Bunkering (manufactures)

BALANCE OF PAYMENTS, EXTERNAL ASSISTANCE AND DEBT
(amounts in millions of U.S. dollars at current prices)

	1971	1972	Actual	1973	1974	1975	1976	1977	1978	1979	1980	1985	Avg. Annual Growth Rate 1972-1985
SUMMARY BALANCE OF PAYMENTS													
Exports (incl. NFS)	1,478	2,078		3,961	5,179	5,714	7,365	8,782	10,500	12,496	14,848	35,213	19.9
Imports (incl. NFS)	2,469	2,576		4,367	7,068	7,815	9,164	10,334	11,821	13,713	15,801	23,909	15.8
Resource Balance (I-H)	-1,011	-501		-406	-1,889	-2,091	-1,799	-1,552	-1,321	-1,217	-1,053	1,264	-
Interest (net)	-91	-106		-123	-111	-211	-304	-408	-466	-721	-876	-1,663	22.7
Other Payments	29	19		26	42	-38	88	89	115	120	120	245	-
Workers Remittances	14	87		130	233	200	185	200	235	310	360	290	-1.7
Balance on Current Accounts	-104	-371		-309	-1,059	-2,080	-1,710	-1,572	-1,347	-1,408	-1,259	1,264	-
Private Direct Investment	43	79		113	124	120	130	140	150	170	190	325	10.5
Official Capital Grants	-	-		-	-	-	-	-	-	-	-	-	-
Public Multilateral Loans	701	669		775	1,171	2,076	2,528	2,610	2,649	2,855	2,950	4,005	6.8
Disbursements	223	269		382	1,071	1,699	638	819	973	1,168	1,381	2,839	20.3
Repayments	-316	-107		-306	-764	-1,623	-1,890	-1,771	-1,876	-1,807	-1,569	-1,186	-3.2
Net Disbursements	33	162		77	307	476	648	819	973	1,168	1,381	2,839	20.3
Other Multilateral Loans	10	10		15	23	23	23	23	23	23	23	23	-
Disbursements	10	10		15	23	23	23	23	23	23	23	23	-
Repayments	-	-		-	-	-	-	-	-	-	-	-	-
Net Disbursements	10	10		15	23	23	23	23	23	23	23	23	-
Capital Transactions n.e.i.	180	67		220	78	-	-	-	-	-	-	-	-
Change in Net Reserves	-83	220		692	-738	-	-	-	-	-	-	-	-
GRANT AND LOAN COMMITMENTS													
Official Grants & Grant-like													
Public Multilateral Loans													
IBRD	85	73		150	85	-	-	-	-	-	-	-	-
IDB	7	28		20	29	-	-	-	-	-	-	-	-
ADB	61	68		16	89	-	-	-	-	-	-	-	-
Other Multilateral													
Governments	309	504		378	388	-	-	-	-	-	-	-	-
Suppliers	180	83		211	320	-	-	-	-	-	-	-	-
Financial Institutions	11	83		211	552	-	-	-	-	-	-	-	-
Bonds	-	-		-	19	-	-	-	-	-	-	-	-
Public Loans n.e.i.	115	16		26	328	-	-	-	-	-	-	-	-
Total Public Multilateral Loans	180	683		1,072	1,831	-	-	-	-	-	-	-	-
EXTERNAL DEBT													
World Bank													
IBRD	197.0	197.0		5.2	5.2	-	-	-	-	-	-	-	-
IDB	58.5	58.5		1.5	1.5	-	-	-	-	-	-	-	-
ADB	70.1	70.1		1.8	1.8	-	-	-	-	-	-	-	-
Governments	1,590.9	1,590.9		41.7	41.7	-	-	-	-	-	-	-	-
Suppliers	371.4	371.4		24.6	24.6	-	-	-	-	-	-	-	-
Financial Institutions	19.0	19.0		0.5	0.5	-	-	-	-	-	-	-	-
Bonds	617.2	617.2		16.2	16.2	-	-	-	-	-	-	-	-
Total Public Multilateral Debt	3,815.7	3,815.7		100.7	100.7	-	-	-	-	-	-	-	-
Other Multilateral Debt	396.0	396.0		-	-	-	-	-	-	-	-	-	-
Short-term Debt (disb. only)	1,035.7	1,035.7		-	-	-	-	-	-	-	-	-	-
INTEREST AND REPAYMENTS													
Interest on Public Debt	67	83		67	83	-	-	-	-	-	-	-	-
Repayments on Public Debt	212	223		212	223	-	-	-	-	-	-	-	-
Total Public Debt Service	279	306		279	306	-	-	-	-	-	-	-	-
Other Debt Service (net)	10	22		10	22	-	-	-	-	-	-	-	-
Total Debt Service (net)	289	328		289	328	-	-	-	-	-	-	-	-
Burden on Export Earnings (\$)													
Public Debt Service	32.8	30.7		32.8	30.7	-	-	-	-	-	-	-	-
Total Debt Service	33.7	32.2		33.7	32.2	-	-	-	-	-	-	-	-
TDS-direct Invest. Inc.	26.6	24.2		26.6	24.2	-	-	-	-	-	-	-	-
Average Terms of Public Debt													
Int. as % Prior Year DTD	4.5	4.8		4.5	4.8	-	-	-	-	-	-	-	-
Amort. as % Prior Year DTD	14.2	12.8		14.2	12.8	-	-	-	-	-	-	-	-
IBRD Debt Out. & Disbursed	9.6	10.2		9.6	10.2	-	-	-	-	-	-	-	-
as % Public Debt DTD	0.5	1.8		0.5	1.8	-	-	-	-	-	-	-	-
as % Public Debt Service	0.3	0.7		0.3	0.7	-	-	-	-	-	-	-	-
IDB Debt Out. & Disbursed	25.6	26.7		25.6	26.7	-	-	-	-	-	-	-	-
as % Public Debt DTD	1.5	1.2		1.5	1.2	-	-	-	-	-	-	-	-
as % Public Debt Service	0.1	0.1		0.1	0.1	-	-	-	-	-	-	-	-

* not applicable
 ** not available
 ... but included in total
 1/ IBRD (loans of maturity one year and above)
 2/ EPB (excludes private, non-guaranteed loans)
 3/ EPB (loans with a maturity of less than one year)

• staff estimate
 - nil or negligible
 -- less than half the
 smallest unit shown
 p provisional

KOREA

THE STATUS OF BANK GROUP OPERATIONS IN THE REPUBLIC OF KOREA

A. Statement of Bank Loans and IDA Credits (as at August 31, 1975)

Loan or Credit Number	Year	Borrower	Purpose	US\$ Million		
				Amount Bank	(less cancellations) IDA	Undisbursed
Five loans and credits fully disbursed				24.7	39.7	
600	1969	ADC	Irrigation	45.0		5.5
151	1969	Republic of Korea	Education		14.8	2.3
669	1970	Republic of Korea	Railways	40.0		2.6
234	1971	Republic of Korea	Livestock		7.0	.3
735	1971	KDFC	Dev. Fin. Co.	30.0		.9
769	1971	Republic of Korea	Highways	54.5		1.4
283	1972	Republic of Korea	Irrigation		15.0	1.4
795	1972	ADC	Irrigation	33.0		32.2
335	1972	Republic of Korea	Agricultural Cr.		10.5	1.9
863	1972	Republic of Korea	Railways	40.0		11.0
905	1973	KDFC	Dev. Fin. Co.	40.0		4.9
906 & 394	1973	Republic of Korea	Education II	23.0	20.0	42.8
917	1973	Republic of Korea	Ports	80.0		75.3
942	1973	Republic of Korea	Seeds Production	7.0		6.6
953	1974	Republic of Korea	Tourism	25.0		22.9
956	1974	Republic of Korea	Highways II	47.0		25.7
994	1974	AFDC	Agriculture	13.0		12.9
1070	1975	Republic of Korea	Secondary Cities	15.0		15.0
1094	1975	Republic of Korea	Program Loan	100.0		33.8
1095	1975	KDB	Dev. Fin. Co.	60.0		60.0
1096	1975	Republic of Korea	Third Education	22.5		22.5
1101	1975	Republic of Korea	Fifth Railway	100.0		100.0
1145 a/	1975	KDFC	Dev. Fin. Co.	55.0		55.0
Total				854.7	107.0	536.9
of which has been repaid				15.3	.5	
Total now outstanding				839.4	106.5	
Amount sold			2.0			
of which has been repaid				0.8		
Total now held by Bank and				838.2	106.5	
IDA (prior to exchange adjustment)						
Total undisbursed				511.2	25.7	536.9

a/ Declared effective on September 5, 1975.

B. Statement of IFC Investment (as at August 31, 1975)

<u>Fiscal Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount in US\$ Million</u>		
			<u>Loan</u>	<u>Equity</u>	<u>Total</u>
1968	KDFC	Development financing	-	0.7	0.7
1969	Honam Silk Co.	Textiles	1.4	0.3	1.7
1970	Atlas Paper Co.	Pulp and paper	4.5	0.5	5.0 ^{1/}
1971	Korea Investment and Finance Corp.	Capital market development	-	0.7	0.7
1974	KDFC	Development financing	-	0.4	0.4
1974	Korea Investment and Finance Co.	Capital market development	-	0.3	0.3
1975	Gold Star & Co., Ltd.	Electronic products	16.0	1.3	17.3
1975	Korea Securities Finance Corp.	Capital market development	5.0	0.6	5.6
1975	Tong Yang Nylon Company, Ltd.	Synthetic fibers	6.9	2.1	9.0
1975	Hae Un Dae Development Company, Ltd.	Tourism	2.7	0.7	3.4
			—	—	—
		Total gross commitment	36.5	7.6	44.1
		less cancellations, terminations, repayments and sales	<u>12.8</u>	<u>0.8</u>	<u>13.6</u>
		Total commitments now held by IFC	<u>23.7</u>	<u>6.8</u>	<u>30.5</u>
		Total undisbursed	<u>8.3</u>	<u>0.8</u>	<u>9.1</u>

^{1/} Cancelled at the request of the Company.

1/
PROJECTS IN EXECUTION

Loan No. 600 Pyongtaek-Kumgang Irrigation Project; US\$45.0 million
Loan of May 23, 1969; Closing Date: December 31, 1976

The Project includes irrigation for about 35,000 ha, improvement of drainage and roads, consolidation of paddy fields, benching of upland and tidal land reclamation. Construction was delayed by a reorganization of the executing agency and a delay in hiring consultants. The major project components (two sea dikes, the main distribution system and pumping plants) were largely completed by the end of 1974. Contracts for nearly all of the remaining work have been awarded. Cost considerations have led to the exclusion of about 5,000 ha of land from the project. Costs have risen from US\$90 million at appraisal to about US\$130 million largely because of the increased costs of right-of-way, engineering, administration and land consolidation. Preliminary estimates indicate increases in the price of rice will partially offset the effects of higher costs and reduced irrigable area. The economic rate of return is now estimated to be about 10 percent, compared with the appraisal estimate of 14 percent. The implementing agency (ADC) has reviewed ways of economizing on the remaining work which should lead to some marginal cost savings. About 88 percent of the Loan has been disbursed. Construction is progressing satisfactorily and is scheduled for completion by mid-1976.

Credit No. 151 First Education Project; US\$14.8 million Credit
of June 4, 1969; Closing Date: September 30, 1976

This Project comprises: (a) the expansion and equipping of 27 technical, commercial and agricultural high schools, 5 post-secondary higher schools and 4 university teacher training departments; and (b) 26 man-years of technical assistance and 20 man-years of overseas fellowships to support the development of agricultural and technical education. All civil works, furniture, technical assistance and fellowships included in the Project have been completed. Equipment procurement is more than 90 percent complete and the remaining 38 items are being tendered. Disbursement has now reached about 85 percent of the total. The total project cost is estimated to remain about 3 percent below the appraised estimate. Due to delays in final equipment procurement, the Closing Date has been extended by nine months.

1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered, and the action being taken to remedy them. They should be read in this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

<u>Loan No. 669</u>	<u>Third Railway Project; US\$40.0 million loan and</u>
<u>Credit No. 183</u>	<u>US\$15.0 million Credit of May 14, 1970; Closing Date:</u>
	<u>December 31, 1976</u>

The bulk of the Loan and Credit was earmarked for the purchase of freight cars, diesel locomotives, and telecommunications and track maintenance equipment. Progress is generally satisfactory except for delays in the procurement of some microwave equipment which had to be re-tendered. The Closing Date has been extended by a year to December 31, 1976 to provide adequate time for the completion of procurement.

<u>Credit No. 234</u>	<u>Integrated Dairy Beef Development Project; US\$7.0 million</u>
	<u>Credit of February 11, 1971; Closing Date: March 31, 1977</u>

See paragraphs 41-44 in the main text.

<u>Loan No. 769</u>	<u>First Highway Project; US\$54.5 million Loan of</u>
	<u>June 29, 1971; Closing Date: December 31, 1976</u>

The construction of approximately 370 km of national highways between Jeonju and Busan was satisfactorily completed in December 1973, at a final cost about five percent above the appraisal estimate. Feasibility studies and detailed engineering have been completed for 1,400 km and 1,100 km of national highways, respectively. A study of road maintenance and the establishment of a pilot maintenance organization formed the basis of the creation of a country-wide Highway Maintenance Organization which is being carried out under the Second Highway Project. The Closing Date has been extended by 13 months to permit completion of procurement of highway maintenance equipment.

<u>Loan No. 795</u>	<u>Yong San Gang Irrigation Project; US\$33.0 million Loan</u>
<u>Credit No. 283</u>	<u>and US\$15.0 million Credit of February 2, 1972; Closing</u>
	<u>Date: September 30, 1977</u>

This Project aims at transforming an area with the highest drought frequency in Korea into one with reliable irrigation and crop diversification. Also, there will be increased production of high value crops such as fruits and winter vegetables. Design work is proceeding satisfactorily and the work on four dams, the main canals and land consolidation has started. Award of all major contracts have been made, although the delay on several means that construction will begin roughly a year later than scheduled at appraisal. The delay was caused mainly by increased costs due largely to price escalation and design modification. The cost increases will be partially compensated for by benefits attributable to the enlargement of the area to be irrigated by about 1,400 ha., and ADC plans to reduce costs by constructing only canals, roads and drainage systems for contour furrow irrigation on all lands exceeding 2 percent slope. Also the Bank has begun monitoring construction costs on each of the ten major civil works contracts on a monthly basis.

Credit No. 335 Agricultural Credit Project: US\$10.5 million Credit of September 29, 1972; Closing Date: September 1, 1976

The Credit supports a three year lending program to small farmers to develop orchards, sericulture and mushroom production and to encourage the breeding of poultry and swine. It also finances an organizational and accounting study of the National Agricultural Cooperative Federation (NACF) and the strengthening of its training facilities. The Project is progressing satisfactorily and disbursement is proceeding on schedule.

Loan No. 863 Fourth Railway Project; US\$40.0 million Loan of November 22, 1972; Closing Date: December 31, 1976

The main elements of the Project are: electrification of lines in the Seoul suburban area; purchase of electric railcars and locomotives; the completion of electrification of 350 km of line running from Seoul to the northeastern part of Korea; track and bridge renewal; provision of yard facilities; acquisition of passenger and freight cars; and improvement of facilities for the maintenance and repair of motive power and rolling stock. No major problems have been encountered; nearly all of the Loan proceeds have been committed.

Loan No. 905 Fourth KDFC Project; US\$40.0 million Loan of June 13, 1973; Closing Date: December 31, 1977

The Project is progressing satisfactorily.

Loan No. 906 Second Education Project; US\$23.0 million Loan and
Credit No. 394 US\$20.0 million Credit of June 13, 1973;
 Closing Date: December 31, 1977

The Project provides equipment for and extensions to the buildings of: 18 technical and 14 agricultural high schools; ten higher schools/junior colleges for industrial, agricultural, fishery and nursing training; colleges of agriculture, engineering and natural sciences in nine universities and a merchant marine college; and ten junior teacher colleges and 12 colleges of education. It also includes pre-investment studies on health and management education. Implementation is about seven months behind schedule due to delays in the preparation of equipment lists (civil works, which are being financed by the Government, are slightly ahead of schedule). The Project has encountered two problems: delays in equipment procurement and lack of counterpart funds to cover cost overruns on civil works (about 75%). However, steps have been taken by the Government and the Bank to overcome these problems and therefore implementation should improve within the next six months. The Project is expected to be completed on schedule by the end of 1977. Disbursement has been somewhat slower than expected at appraisal due to the delay in the preparation of equipment lists but is expected to improve.

Loan No. 917 Ports Project; US\$80 million Loan of June 27, 1973;
Closing Date: June 30, 1979

The Project includes the provision of container and bulk cargo facilities and equipment at Busan and coal piers and handling equipment at Busan and Mukho. Some contracts for dredging and pier construction have been awarded. The design-work and preparation of tender documents for the remaining items are proceeding satisfactorily. Revised cost estimates show an increase of about 30 percent over appraisal estimates. A Phase II Port Development Study and consultants' services in connection with the establishment of a "Korean Port Authority" are proceeding satisfactorily.

Loan No. 942 Seeds Project; US\$7.0 million Loan of November 16, 1973;
Closing Date: December 31, 1978

The Project consists of: (a) the installation of five field crop seed processing and storage facilities; (b) farm machinery for seed production; (c) procurement of seasonal seed inventories through the operation of a revolving fund; (d) seed testing laboratories and equipment; (e) crop research (financed in part by USAID); (f) feasibility studies for irrigation and area development; and (g) technical assistance. The necessary legislative and administrative action for revising the Seed Law and establishing an "Office of Seed Production and Distribution" has been taken. Project implementation is proceeding satisfactorily. Preliminary estimates suggest that Project costs would be somewhat higher than envisaged at appraisal; the estimates are being reviewed.

Loan No. 953 Kyongju Tourism Project; US\$25.0 million Loan of
January 4, 1974; Closing Date: December 31, 1978

The Project forms part of the first phase of the planned development of the Bomun Lake resort near Kyongju. It provides for a multi-purpose dam; an irrigation system for about 1,200 ha; improvement and expansion of the water supply and sewerage and solid waste disposal systems for the city of Kyongju and the resort area; installation of electrical supply and telecommunication facilities for the resort area; the construction and/or realignment of about 57 kms of roads; infrastructure including storm water drainage, environmental sanitation, community facilities, a golf course, a school for training hotel personnel; and a feasibility study for the development of tourism on Cheju Island. Final design for almost all Project components is complete and several contracts have been awarded.

Loan No. 956 Second Highway Project; US\$47.0 million Loan of
January 25, 1974; Closing Date: December 31, 1977

The Project, which forms part of the Government's 1972-76 road construction and paving program, consists of the construction (chiefly on new alignments) of about 130 kms and paving (largely on existing alignments) of approximately 635 km of national highways; feasibility studies

by consultants of about 1,000 kms of national and provincial roads, followed by detailed engineering where justified; and the procurement of highway maintenance and workshop equipment for the extension of a new highway maintenance program from a pilot province to the remainder of the country. All construction and paving contracts have been awarded.

Loan No. 994 Integrated Agricultural Products Processing Project;
US\$13.0 million Loan of June 7, 1974; Closing Date:
June 30, 1979

The Project aims at integrating the on-farm production of commercial crops for export with efficient hygienic processing facilities using land that is presently idle or underutilized. It comprises (i) on-farm development of asparagus, oak mushrooms and mushrooms; (ii) construction of and improvements to facilities to process asparagus, oak mushrooms, mushrooms and fruits; and (iii) technical assistance including training of staff, services of consultants, etc. The Project is progressing satisfactorily.

Loan No. 1070 Secondary Cities Regional Project; US\$15.0 million
Loan of January 15, 1975; Closing Date: March 31, 1979

The principal aims of the Project are the establishment of an organizational framework for regional investment, planning and development and to improve working and living conditions in the secondary cities of the less developed Gwangju region. The main elements of the Project are; (i) housing sites and services in the cities of Yeosu, Mogpo and Gwangju (370,384 m²); (ii) a fishery harbor complex with industrial processing zone (215,385 m²) in Yeosu; (iii) a city market in Suncheon City (33,160 m²); and (iv) access roads in Yeosu and Mogpo (6.61 km). It also provides technical assistance to strengthen regional planning and development, to improve the utilization of existing water supply systems in the four cities, to assist the management and operation of the fishery complex and to carry out feasibility studies of project proposals identified under the UNDP-financed Phase II Regional Study. The Loan was declared effective on August 18, 1975.

Loan No. 1094 Program Loan; US\$100.0 million Loan of March 31, 1975;
Closing Date: May 1, 1976

The principal aim of the Loan is to help meet the foreign exchange requirements of the import into the Republic of Korea by the private sector of essential capital and intermediate goods. Over 80 percent of the Loan has been disbursed.

Loan No. 1095 Korea Development Bank Project; US\$60.0 million Loan
of March 31, 1975; Closing Date: June 30, 1979

The Project provides funds to KDB which will be used to make sub-loans to finance direct imports for industrial sub-projects during the period mid-1975 to mid-1977.

Loan No. 1096

Third Education Project; US\$22.5 million Loan of
March 31, 1975; Closing Date: June 30, 1980

The principal aims of the Project are to assist in supplying needed skills and to establish a framework for evaluating performance and improving the educational system. The Project consists of: (a) construction and equipment of a new technical high school; (b) equipment and extension of buildings for three agricultural junior colleges; (c) equipment and enlargement of buildings for a fisheries college, three fisheries high schools, and equipment for one merchant marine junior college; (d) construction and equipment of seven new vocational training institutes; and (e) financing of engineering and technical services required for the preparation of future education projects.

Loan No. 1101

Fifth Railway Project; US\$100.0 million Loan of
April 10, 1975; Closing Date: December 31, 1978

The Project will help the Korean National Railroad (KNR) continue as a major carrier of freight and passengers by helping in: the upgrading, modernization and expansion of track, rolling stock, motive power, and other equipment; the improvement of the efficiency of operation; and its financial recovery. The main components of the Project are: an increase in station and line capacity and improvements in signalling; acquisition of rolling stock, diesel and electric locomotives, spare parts and repair facilities; track renewal and improvement; bridge strengthening; completion of electrification of 71 km of industrial lines; and other miscellaneous items. The Loan was declared effective July 15, 1975.

Loan No. 1145

Fifth Korea Development Finance Corporation Project;
US\$55.0 million Loan of July 23, 1975; Closing Date:
June 30, 1980

The Loan will cover about half the KDPC's foreign exchange requirements through the end of 1977. It will be used to finance direct imports of machinery and equipment, and the foreign exchange component of domestically produced capital goods and of civil works. The Loan was declared effective on September 5, 1975.

KOREA

SECOND INTEGRATED DAIRY DEVELOPMENT PROJECT

LOAN AND PROJECT SUMMARY

Borrower: The Republic of Korea

Amount: \$15.0 million

Terms: 25 years, including seven years of grace, with interest at 8-1/2 percent.

Relending Terms:

	<u>Grace Period</u>	<u>Repayment Period</u>	<u>Total Term</u>	<u>Interest Rate (%)</u>
(a) <u>For Farm Development</u>				
from Government to KDBC	6	9	15	8.5
from KDBC to farmers	3	6	9	12.0
(b) <u>For Dairy Processing Facilities</u>				
from Government to KDBC	6	9	15	8.5

The Government will bear the foreign exchange risk on funds on-lent by KDBC for farm development and technical services (approximately \$9.0 million). KDBC will assume the foreign exchange risk on the portion of the proposed Bank loan (approximately \$6.0 million) which will help finance the expansion of milk processing facilities.

Project

Description: The proposed project would consist of:

- (a) the establishment of about 450 new dairy farms each of which would initially have 8 heifers (estimated cost: \$11.2 million, including contingencies).

- (b) the continuation of the development begun as part of the (First) Integrated Dairy Beef Project on about 400 dairy farms by increasing the numbers of heifers on each to ensure their long-term financial viability (estimated cost \$2.7 million, including contingencies);
- (c) (i) the expansion of existing processing plants which produce baby milk-powder, sterilized fluid milk, and wholemilk powders; (ii) the diversification of present plants to include production of butterfat, evaporated milk, and powdered coffee creamer; (iii) the establishment of two milk collection centers; (iv) the provision of approximately 50 small milk cooling units; and (v) the construction of a frozen milk products plant at Yeongnam (estimated cost: \$8.8 million, including contingencies); and
- (d) the expansion of technical services for both farm development and milk processing (estimated cost: \$1.8 million, including contingencies).

Estimated Cost:

<u>Category</u>	<u>Local</u> ----Won	<u>Foreign</u> (million)	<u>Total</u> -----	<u>Local</u> ----(US\$	<u>Foreign</u> million)	<u>Total</u> -----
Dairy Farm Development	2,121	2,560	4,681	4.42	5.33	9.75
Dairy Processing Facilities	975	2,128	3,103	2.03	4.43	6.46
Technical Services	<u>96</u>	<u>528</u>	<u>624</u>	<u>.20</u>	<u>1.10</u>	<u>1.30</u>
Sub-Total	3,192	5,216	8,408	6.65	10.86	17.51
Contingencies	<u>1,352</u>	<u>1,984</u>	<u>3,336</u>	<u>2.81</u>	<u>4.14</u>	<u>6.95</u>
Total Project Cost	<u>4,544</u>	<u>7,200</u>	<u>11,744</u>	<u>9.46</u>	<u>15.00</u>	<u>24.46</u>

Financing Plan:

The total cost of the proposed project (\$24.46 million) will be financed as follows:

	<u>\$ Million</u>
Farmers	2.61
MAF/NACF	3.88
KDBC	2.97
Bank	15.00

<u>Estimated</u> <u>Disbursements:</u>	<u>Calendar Year</u>	<u>Yearly</u> (\$ million)	<u>Cumulative</u>
	1976	7.5	7.5
	1977	3.0	10.5
	1978	2.9	13.4
	1979	1.3	14.7
	1980	.2	14.9
	1981	.1	15.0

Procurement
Arrangements:

International competitive bidding in accordance with the Bank's Guidelines would be applied for the purchase of machinery, equipment and start-up materials for dairy processing facilities. Vehicles to serve the processing facilities, and civil works contracts for the construction of the dairy processing facilities, would be awarded on the basis of competitive bidding advertised locally in accordance with procedures satisfactory to the Bank. Foreign contractors would be eligible to bid. This arrangement is considered appropriate since the Korean construction industry is experienced, efficient and competitive, and several local plants, each with a foreign affiliate, ensure a competitive and adequate supply of vehicles. For the purchase of cattle, KDRC would submit to the Bank for its agreement a list of at least 3 countries from which suitable disease free live-stock could be imported. After agreement on the list, quotations would be sought from suppliers in these countries. Other goods required for dairy farm development, such as farm machinery, milk cans, fencing, fertilizers, seeds and farm structures, would be obtained through existing commercial channels; international competitive bidding would not be appropriate since individual contracts would be small and numerous and the size and combination of farm investments would vary considerably.

Vehicles and motorcycles required for the technical services component of the Project would be procured on the basis of competitive bidding advertised locally.

Economic Rate
of Return:

15 percent

Appraisal
Report:

No. 824-KO, dated October 13, 1975

October 15, 1975